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(54) **FRAME MATTRESS HAVING A REMOVABLE MATTRESS COVER AND A TURNABLE MATTRESS**
LIEGEFLÄCHENRAHMEN MIT ABNEHMBAREM MATRATZENÜBERZUG UND WENDBARER
MATRATZE

MATELAS A CADRE COMPRENANT UNE ENVELOPPE AMOVIBLE ET UN MATELAS POUVANT
ETRE RETOURNE

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(56) References cited:

WO-A-95/05767	DE-A- 2 536 882
NO-B- 144 509	NO-B- 149 198
SE-C- 505 654	US-A- 4 274 169
US-A- 4 389 743	US-A- 4 541 137
US-A- 5 136 741	US-A- 5 231 714

- Drawing filed on 01.03.99 with letter of 26.02.99
and showing the closest prior art.

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Description

[0001] The present application relates to a frame mattress. The frame mattress consists of a frame, a spring inlay covered by a cloth, a main mattress of per se known type and a fitted cover mounted over the whole construction. The invention distinguishes itself by the removable fixing of the fitted cover and the turnability of the mattress.

[0002] Suppliers of conventional mattresses to be placed in the bottom of conventional beds have for a long time recommended that the mattress be turned at least once a year. In this way the materials will be allowed to recover on the side used, and the wear life of the mattress will be approximately doubled.

[0003] Frame mattresses are well known products in Scandinavia. However, up to now none of these products opens up for the possibilities of:

a) removing the mattress cover completely in order to have it washed,

b) turning the main part of the padding (the main mattress) i.e. the spring inlay with the padding material, such as latex foam.

[0004] For prior art frame mattresses applies, either:

a) the main part of the padding is stapled or glued to the wooden frame, i.e. it is impossible to turn it, and/or

b) the mattress cover is stapled or in some other way fixed to the wooden frame making it impossible to remove the cover to wash it.

[0005] Two alternative solutions are commercially known. One of them comprises the fixing of the mattress cover with a plastic string into a groove in the frame making it possible to remove the cover. However, the mattress cannot be turned. The second solution is a mattress provided with a zipper at three sides of the cover thus making it possible to open the cover but not to remove it. This opening as described allows the turning of the mattress, however, the combination removable cover/turnable mattress, as according to the present invention, is not achieved.

[0006] The present invention provides advantages regarding:

1) better hygiene because of the washable cover. In addition, the main product will have an increased wear life. This is particularly important both with a view to contagious illnesses and allergies,

2) the main padding with a spring inlay (the main mattress) may be used on both sides, thus essentially increasing the wear time of the main product,

maybe double it.

[0007] The invention is further illustrated by the aid of the following annexed drawings, wherein:

Fig. 1 shows the bearing wooden frame (1), in which a spring inlay (2) is placed covered by a cloth such as a Vlieseline cloth (3) stapled to the frame;

Fig. 2 shows a finished frame (1), whereupon is placed a turnable mattress (4) comprising a spring inlay, padding and side rims;

Fig. 3 shows how the fitted cover (5) is mounted over the whole construction and is fixed preferably with a velcro (6). One half of the velcro is stapled to the under side of the wooden frame (1) and the opposite part is fixed to the cover (5) by stitches. The frame mattress is ready for use.

Fig. 4 shows the dismounting: The velcro (6) is opened at the under side of the frame, and the cover (5) may now in a simple way be removed to be washed;

Fig. 5 shows how the main mattress (4) now may be turned before the cover (5) is replaced.

[0008] The purpose of turning the main part of the frame mattress is that the load on the mattress is distributed on both sides, in practice meaning that the frame mattress according to the invention maintains its comfort properties as long as possible. Due to the washability of its cover the frame mattress according to the invention maintains the requirements to hygiene and delicate appearance.

[0009] The invention comprises all types of frame mattresses or corresponding constructions. All types of padding materials (e.i. fibres, polyurethane foam, latex foam) and spring inlays (e.i. Bonell, LFK, Pocket) may be used.

Claims

1. Frame mattress comprising a frame (1), an upper mattress (4) having a spring inlay, the upper mattress (4) being attached to the frame (1), and a form fitted mattress cover (5) removably mounted over the whole construction and removably fixed to the under side of the frame (1), in which the frame (1) forms a cavity and in this cavity is placed a spring inlay (2) covered with a cloth (3) fixed to the frame (1) and the spring inlay of the upper mattress has a usable padding on both sides and is turnably placed on said frame (1)

2. Frame mattress according to claim 1, **characterised in that** the removable mounting to the frame (1) is provided optionally with a velcro (6), which one part is fixed to the frame (1) for instance by stapling, and the opposite part is fixed to the mattress cover (5), for instance with stitches. 5
3. Frame mattress according to claims 1 and 2, **characterised in that** the padding material comprises fibres, polyurethane foam or latex foam. 10
4. Frame mattress according to claims 1 to 3, **characterised in that** the spring inlay in of the type Bonell, LFK, Pocket. 15

Patentansprüche

1. Rahmenmatratze, die eine an einem Rahmen (1) befestigte obere Matratze (4) mit Sprungfederkern und einen formangepaßten Matratzenüberzug (5), der abnehmbar über der Gesamtkonstruktion angebracht und lösbar an der Unterseite des Rahmens (1) befestigt ist, umfasst, wobei der Rahmen (1) einen Hohlraum bildet und in diesem Hohlraum ein Sprungfederkern (2) angeordnet ist, der mit einem an dem Rahmen (1) befestigten Tuch (3) abgedeckt ist, und der Sprungfederkern der oberen Matratze (4) eine auf beiden Seiten nutzbare Polsterung aufweist und auf dem Rahmen (1) wendbar angeordnet ist. 20 25 30
2. Rahmenmatratze nach Anspruch 1, **dadurch gekennzeichnet, dass** das lösbare Anbringen an dem Rahmen (1) wahlweise mit einem Klettverschluss (6) erfolgt, von dem ein Teil - beispielsweise mit Heftklammern - an dem Rahmen (1) befestigt ist und der gegenüberliegende Teil - beispielsweise mit Nähten - an dem Matratzenüberzug (5) befestigt ist. 35 40
3. Rahmenmatratze nach Anspruch 1 und 2, **dadurch gekennzeichnet, dass** das Polstermaterial Fasern, Polyurethanschaum und Latexschaum umfasst. 45
4. Rahmenmatratze nach Anspruch 1 bis 3, **dadurch gekennzeichnet, dass** der Sprungfederkern ein Bonelltyp, ein LFK-Typ oder ein Taschenfederkern-typ ist. 50

Revendications

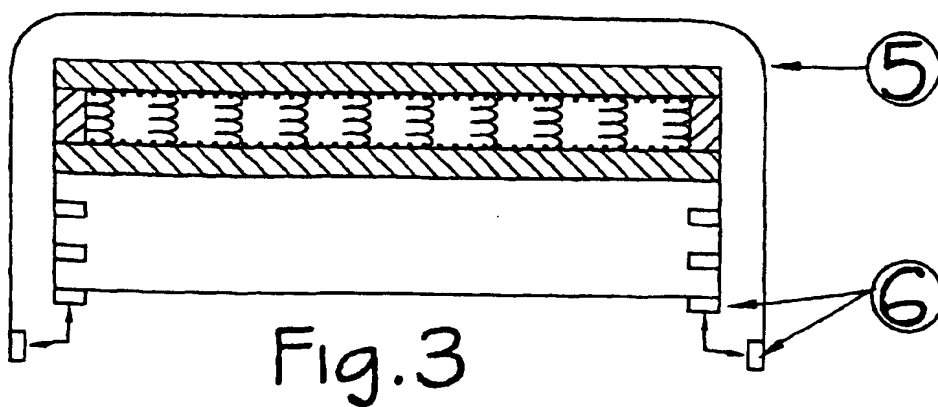
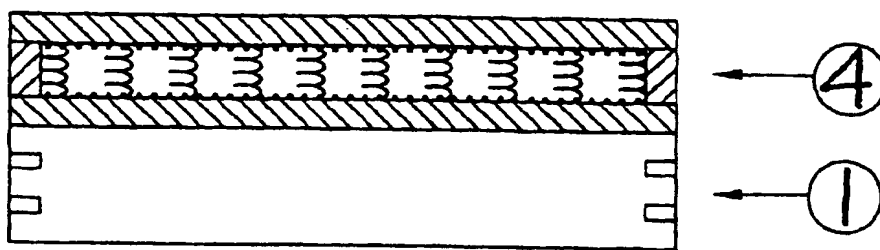
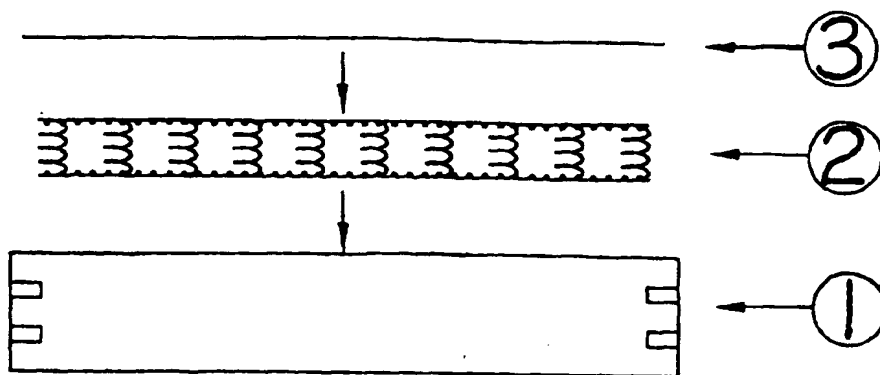
1. Matelas à cadre, comprenant un cadre (1), un matelas supérieur (4) avec une garniture à ressorts, le matelas supérieur (4) étant fixé sur le cadre (1), et un couvre-matelas (5) de forme ajustée, monté de 55

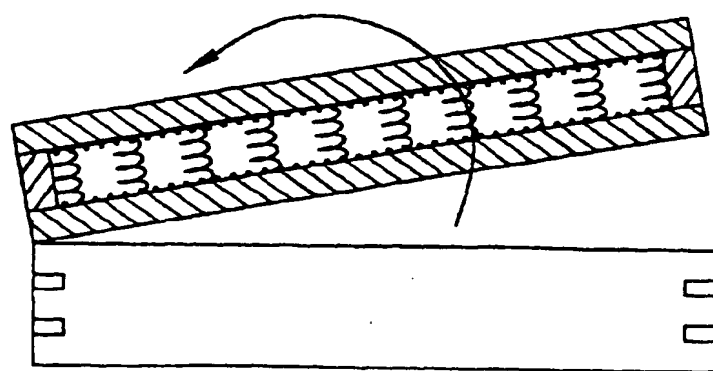
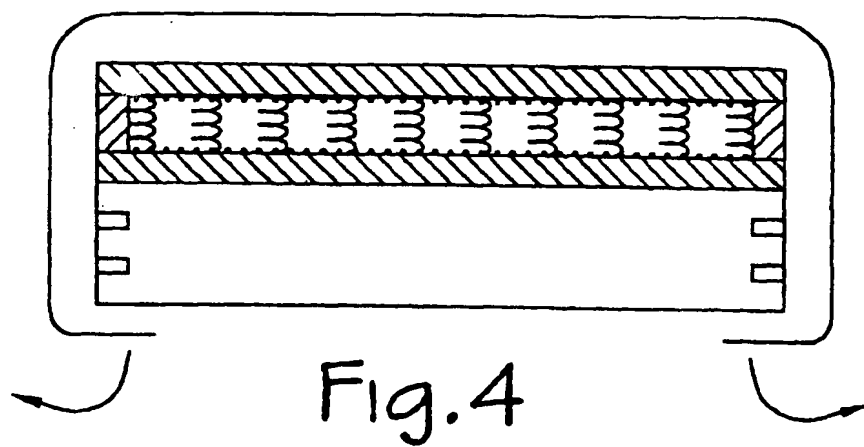
façon amovible sur toute la structure et fixé de façon amovible sur le côté inférieur du cadre (1), dans lequel le cadre (1) forme une cavité et dans cette cavité est placée une garniture à ressorts (2) revêtue d'un tissu (3) fixé sur le cadre (1), et la garniture à ressorts du matelas supérieur comporte un rembourrage utilisable des deux côtés et est placée de façon réversible sur ledit cadre (1).

2. Matelas à cadre selon la revendication 1, **caractérisé en ce que** le montage amovible sur le cadre (1) est facultativement doté d'un Velcro (6), dont une partie est fixée sur le cadre (1), par exemple par agrafage, et dont la partie opposée est fixée sur le couvre-matelas (5), par exemple par des coutures. 15

3. Matelas à cadre selon les revendications 1 et 2, **caractérisé en ce que** le matériau de rembourrage comprend des fibres, de la mousse de polyuréthane ou de la mousse de latex. 20

4. Matelas à cadre selon les revendications 1 à 3, **caractérisé en ce que** la garniture à ressorts est du type Bonell, LFK, Pocket. 25





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